

**AMENDMENTS TO THE SPECIFICATION**

Please amend the specification as indicated hereafter. It is believed that the following amendments and additions add no new matter to the present application.

*In the Specification:* [Use ~~strike through~~ for deleted matter and underlined for added matter.]

Please amend the paragraph starting on p. 1, line 5 as follows:

The present invention generally relates to optical reflectometry, and more particularly, to a system and method for measuring a gap between two surfaces. With the advent of optical reflectometry-based measuring devices capable of distances as small as 10 microns ( $\mu\text{m}$ ), precise and accurate measurements of critically small distances can be made. A nonlimiting example of an optical reflectometry-based measuring device is the optical thickness gauge (OTG) once sold by Hewlett-Packard (HP 86125A-K1X). The operation and functionality of such an OTG is disclosed in of U.S. Patent Serial. No. 5,642,196, filed on June 24, 1997, and entitled METHOD AND APPARATUS FOR MEASURING THE THICKNESS OF A FILM USING LOW COHERENCE REFLECTOMETRY, which is entirely incorporated herein by reference. Other exemplary optical reflectometry-based measuring devices and their applications, incorporated herein by reference, are disclosed in U.S. Patent Serial No. 5,473,432, filed on December 5, 1995, and entitled APPARATUS FOR MEASURING THE THICKNESS OF A MOVING FILM UTILIZING AN ADJUSTABLE NUMERICAL APERTURE LENS, U.S. Patent Serial No. 5,610,716, filed on March 11, 1997, and entitled METHOD AND APPARATUS FOR MEASURING FILM THICKNESS UTILIZING THE SLOPE OF THE PHASE OF THE FOURIER TRANSFORM OF AN AUTOCORRELATOR SIGNAL, U.S. Patent Serial No. 5,633,712, filed on May 27, 1997, and entitled METHOD AND APPARATUS FOR DETERMINING THE THICKNESS AND INDEX OF REFRACTION OF A FILM USING LOW COHERENCE REFLECTOMETRY AND A REFERENCE SURFACES, U.S. Patent Serial No. 5,646,734, filed on July 8, 1997, and entitled METHOD AND APPARATUS FOR INDEPENDENTLY MEASURING THE THICKNESS AND INDEX OF REFRACTION OF FILMS USING LOW COHERENCE REFLECTOMETRY, ~~U.S. Patent Serial No. 5,642,196, filed on June 24, 1997, and entitled METHOD AND APPARATUS FOR MEASURING THE THICKNESS OF A FILM USING LOW COHERENCE REFLECTOMETRY,~~ U.S. Patent Serial No. 5,731,876, filed on March 24, 1998, and entitled METHOD AND APPARATUS FOR ON-LINE DETERMINATION OF THE THICKNESS

*Serial No. 10/039,599*

*Art Unit: 2877*

OF A MULTILAYER FILM USING A PARTIALLY REFLECTING ROLLER AND LOW  
COHERENCE REFLECTOMETRY, and U.S. Patent Serial No. 5,850,287, filed on  
December 15, 1998, and entitled ROLLER ASSEMBLY HAVING PRE-ALIGNED FOR  
ON-LINE THICKNESS MEASUREMENTS.